CHAPTER 1 – PURPOSE AND NEED FOR ACTION

Introduction

The Forest Service has prepared this Environmental Assessment (EA) to disclose the effects of proposed timber salvage activities on National Forest lands in the Cameron and Lyman Creek drainages. These are tributaries to the East Fork Bitterroot River, located on the Sula Ranger District, Bitterroot National Forest.

This EA discloses the direct, indirect, and cumulative environmental impacts and any irreversible commitment of resources that would result from the proposed action and alternatives. This EA is prepared according to the format established by Council on Environmental Quality (CEQ) regulations implementing the National Environmental Policy Act (NEPA) found in 40 CFR 1500-1508.

This chapter provides background on the proposed action, the purpose and need for action, how the project relates to the Bitterroot Forest Plan, and the scope of the analysis. Chapter 2 identifies the key issues, the public involvement process, and describes alternative ways (including taking no action) of addressing or resolving the project issues. Two action alternatives that wholly meet the purpose and need for action are presented. The alternatives and their effects are also compared in summary fashion. Chapter 3 describes the natural and human environments potentially affected by the proposed action and alternatives, and discloses the anticipated effects of the alternatives. Found at the end of the document is a list of preparers, the EA distribution list, literature cited, and a glossary. This EA incorporates other documented analyses by summarization and reference where appropriate.

Copies of this EA are available at the Bitterroot National Forest Supervisor's Office (1801 N. First, Hamilton, Montana 59840) and at the Sula Ranger Station (7338 Hwy 93 South, Sula, Montana 59871). Copies can also be requested by calling (406) 821-3201 or 363-7100. Additional documentation, including more detailed information on project area resources, is available for review in the project planning records at the Sula Ranger Station.

Background

Fires of 2000

The wildfires of 2000 burned across much of the Cameron and Lyman Creek drainages on the Sula Ranger District, killing trees extensively, and injuring and weakening many other trees that are now either dead or dying from secondary causes, particularly Douglas-fir bark beetles. Much more information on the fires of 2000 on the Bitterroot National Forest and their effects are available in the following documents (available on request from the offices listed above): "*Bitterroot Fires 2000: An Assessment of Post Fire Conditions with Recovery Recommendations*" (USDA Forest Service, December 2000), and "*Burned Area Recovery Final Environmental Impact Statement*" (USDA Forest Service, September 2001). Both of the documents address the social and resource conditions following the Bitterroot fires of 2000. The Lyman Project area is addressed under the East Fork Geographic Area sections of both those documents. This EA tiers to the above mentioned documents and effects to affected resources are described in the *"Burned Area Recovery Final Environmental Impact Statement"* (USDA Forest Service, September 2001).

The Project Area

The project area is located about six miles northeast of Sula, Montana on lands administered by the Sula Ranger District, Bitterroot National Forest. The western boundary of the project area adjoins land managed by the Montana Department of Natural Resources and Conservation (DNRC). Proposed activities are located in the Cameron Creek drainage and Lyman Creek drainage (a tributary of Cameron Creek) in sections 12, 13 and 24, T2N, R19W and sections 7, 8, 17, and 18, T2N R18W, PMM, Ravalli County Montana. The area considered for management activities is displayed on Map I-1.

Purposes and Needs for Action

The purposes of the proposed project are to:

1. Provide forest products for local economic benefits

2. Reduce road caused sediment in the project area
3. Re-establish forested conditions where tree cover has been lost

The primary purpose of the proposal is to salvage the merchantable timber that has been or will be killed due to the effects of the 2000 fires. Harvesting activities would help families and households that at least partially rely on National Forest timber for their livelihoods. Their jobs are also an important component of the local, regional, and National economies.

The needs for the proposed action are derived from the differences between current conditions and desired conditions. Desired conditions are based on Forest Plan direction and management objectives (Forest Plan, pp II-2 to II-7), II-12 to II-33, and III-3 to III-13). The proposed actions are designed to achieve or progress toward desired conditions.

Current Conditions

The fires of 2000 resulted in extensive tree mortality in the Lyman project area and subjected trees that survived the fires to stress. Bark beetles (particularly Douglas-fir bark beetles) have killed, and are continuing to kill fire stressed trees enough to be susceptible to beetle attacks that could kill them. It is anticipated that more trees will die due to duel stresses of fire and beetle attack.

Fires also increased the potential delivery of sediment to stream systems because most roads on the Bitterroot National Forest are relatively old and were constructed prior to today's standards that reduce sediment production. The backlog of road improvement needs in combination with the 2000 fires could lead to greater sediment delivery to stream and river systems. There is an opportunity to stabilize sediment sources in the burned areas by maintaining, storing, and decommissioning certain roads. Some of this work may be able to be financed by receipts from timber harvest.

There is also a shortage of available seed sources to naturally regenerate some of the analysis area. Planting appropriate tree species in areas that lack adequate native seed sources will speed recovery of previously forested areas within the project area. There is also an opportunity to fund a portion of the reforestation costs with timber receipts.

Forest Plan Direction and Desired Condition

The Bitterroot Forest Plan guides all resource management activities and establishes standards for the Bitterroot National Forest. Management Areas and associated goals and standards are described in Chapter III of the Forest Plan. For this proposal, activities would occur in Bitterroot Forest Plan Management Areas 1 and 2 (Forest Plan, pp III-3 to III-14). Map I-2 shows the Management Areas in the Lyman Project area.

Management Area 1 emphasizes timber management, livestock and big game forage production and access for roaded dispersed recreation activities. Minimum levels for visual quality, old growth, and habitat for wildlife species are to be assured.

Management Area 2 optimizes elk winter range habitat using timber management practices. It also emphasizes access for roaded dispersed recreation activities. Moderate levels for visual quality, old growth, and habitat for other wildlife, and livestock forage are to be assured.

Providing Forest Products

Relevant Bitterroot Forest Plan direction for the timber resource includes:

- Forest-wide management goal, "Provide sawtimber and other wood products to help sustain a viable local economy" (FP p. II-4).

Desired outcomes for this project include providing materials, jobs, and income to local communities through timber harvest, as well as watershed improvement activities and reforestation work that is typically performed by private businesses via contract.

Improving Watershed Conditions

Relevant Bitterroot Forest Plan direction for water and aquatic resources includes:

- Plan and conduct land management activities so that reductions of soil productivity potential caused by detrimental compaction, displacement, puddling, and severe burning are minimized (FP, p II-25).
- Plan and conduct land management activities so that soil loss, accelerated surface erosion and mass wasting, caused by these activities, will not result in unacceptable reductions in soil productivity and water quality (FP, p II-25).
- Actively reduce sediment from existing roads (FP, p II-25).
- Maintain or enhance fish habitat (FP, p II-5).

In addition, the Inland Native Fish Strategy (INFISH) amendment to the Forest Plan provides direction to minimize sediment delivery to streams, remove fish migration barriers, close and stabilize or obliterate roads not needed for future management activities, and improve existing stream crossings to accommodate a 100-year flood (USDA, 1995).

The Off-Highway Vehicle decision for National Forests and BLM units in Montana, North Dakota, and parts of South Dakota (USDA/USDI, 2001) restricts wheeled motorized cross-country travel yearlong, where it was not already restricted. This decision amended the Bitterroot Forest Plan.

Desired conditions for soil, water and aquatic resources in the Lyman area are:

- Protect soil productivity and maintain land stability.
- Meet state water quality standards by applying soil and water conservation practices.
- Protect water for non-consumptive uses including fish habitat, recreational uses, stream channel maintenance, and aesthetics.
- Protect riparian areas to prevent adverse effects on stream channel stability and fish habitat.
- Stabilize sediment sources on existing open roads by applying Best Management Practices (BMP) standards. Improve water infiltration and hydrologic function on closed roads where prudent.
- Provide jobs and income to local communities through watershed improvement activities

Re-establishing Forested Conditions

Suitable timberlands are those lands designated by the Forest Plan as "suitable for timber production" (36CFR 219.14). They include Forest Plan Management areas 1, and 2. The Forest Plan directs that reforestation occur within the portions of these Management Areas suited to support trees and that fuels be managed to protect the new stands.

Relevant Bitterroot Forest Plan direction regarding reforestation includes:

- Forest-wide management objective, "Convert high-risk or insect and disease infested stands to young, healthy stands" (FP, p. II-6).
- "Reforest to species which optimize timber production" (FP, p. II-4).
- A variety of tree species will be planted where habitats and conditions permit, to prevent creation of monocultures that are susceptible to insect and disease epidemics" (FP, p. II-22).
- "Reforest to species which optimize winter range hiding and thermal cover" (FP, p. III-11)
- Coordinate fuel treatments and site preparation to minimize fire danger and insect and disease problems, and secure establishment and protection of new stands" (FP. pp. III-7 and III-13).

Desired conditions in burned suitable timberlands where reforestation investments occur are:

- Fuel levels are managed to provide an increased likelihood of protecting reforestation investments from significant losses caused by future fires.
- Fuel levels are managed to allow the successful application of low intensity prescribed fire in the future.
- Fuel levels are managed so that adequate levels of coarse woody debris exist to maintain soil productivity and wildlife, fish and other resource values.
- Reforestation activities provide jobs and income.
- Natural and activity fuels will be treated to reduce slash depth to provide for big game movement (FP, p. III-13)

Proposed Action

The Sula District proposes to offer dead or dying trees for commercial timber harvest in selected areas to be used as firewood, house logs, sawlogs, and roundwood. Salvage of dead and dying trees would provide raw materials for the timber industry and contribute to local jobs and income.

This proposal includes salvage of dead and dying trees in 15 harvest units totaling approximately 569 acres. Timber would be sold using one or more small timber sales that would occur over the next one to two years. Products would be removed by tractor and skyline yarding systems, and where needed, would be done over snow or frozen ground to protect soil and water resources. Adequate numbers of snags would be retained within harvest units for wildlife habitat and soil productivity benefits. Slash disposal would include either whole tree yarding of tops and limbs that would be piled at log landings, jackpot burned, or lopped/scattered as needed. Removal of diseased (e.g., trees infected with dwarf mistletoe) and/or suppressed trees, to facilitate stand establishment and improve overall stand health and vigor, would also occur. Reforestation would occur where appropriate. Felling of unmerchantable, undesirable trees left after harvesting operations to prevent competition with establishing regeneration and reduce potential for pathogen infection would occur in some areas.

The Sula District also proposes certain changes in road management. The following actions would help to eliminate or reduce specific sediment sources to project area streams.

Forest roads in burned drainages that are needed for ongoing motorized access would be treated to comply with Best Management Practices (BMP) standards. Treatments would include shaping roads and installing enough drainage structures in the right locations so water does not cause erosion on the road. Segments of main roads, especially along streams and stream crossings would be graveled to reduce erosion. No changes in access would result from these activities, other than perhaps short-term delays while the work is in progress.

Approximately 12.6 miles of currently closed roads in the Lyman Creek drainage are not needed in the near future and would be put “in storage.” Treatments would include removing culverts, decompacting the road surface, installing no-maintenance cross ditches, and revegetating. These activities would leave the road prism in place for future use.

Two other closed roads totaling 1.4 miles in the Lyman Creek drainage are proposed for decommissioning. These roads which are not needed in the future, would be decompacted, have the natural drainage pattern restored, and in some cases would be recontoured to the original slope (such as the beginning segment of a road).

Establishing vegetation on burned road cut and fill slopes, as well as on closed road surfaces and other areas of disturbed soil, is also proposed to reduce sediment from roads and reduce potential noxious weed invasion.

Trees would be planted with a spacing and species mix that is appropriate for the site and where needed to meet Forest Plan direction and desired conditions. Some of the areas proposed for reforestation are also proposed to have fuel reduction activities conducted on them first. Planting prior to fuel reduction is not considered practical because fuel reduction activities could damage the seedlings. Planting is estimated to begin in 2005 and continue for the next several years.

The Proposed Action is presented in this EA as Alternative 2, which is described in more detail in EA Chapter 2.

Scope of the Proposed Action, Analysis, and Decision Framework

The scope of the project and the decision to be made is limited to the timber harvest, watershed improvement work, reforestation, management requirements, and monitoring described in Chapter 2 of this document. If the Responsible Official selects an action alternative, implementation of the activities will begin as soon as possible and without further NEPA documentation. Implementation could begin during the summer of 2004.

The three primary management activities considered in this EA (timber salvage, road sediment reduction work, and reforestation) are addressed in one analysis because there is a connection between these activities. Some of the watershed improvement roadwork could be implemented as a requirement of a timber sale or stewardship contract. It is also possible that some of the reforestation could be funded with receipts generated by timber harvest. Also, because these activities would occur in the same area and within similar timeframes, addressing all three in the same analysis better enables cumulative effects analysis.

In analyzing effects of the proposed action and alternatives, cumulative effects of other activities (past, present, and reasonably foreseeable future) on federal, state, and private lands are considered. These include a variety of past, ongoing, and future events and management activities including the fires of 2000, timber harvest, and road construction (refer to the project file). The past events and activities are reflected in the descriptions of the affected environment in Chapter III.

The Lyman Salvage Project harvest units are located in an area not covered by the February 7, 2002 Settlement Agreement signed by representatives of the Forest Service and plaintiffs that filed lawsuits over the Bitterroot Burned Area Recovery (BAR) Project Record of Decision. The Lyman salvage units were not included in the Bitterroot BAR Project decision because they were considered low priority areas to reduce fuel hazards within the area burned on the Bitterroot National Forest.

Based on the analysis in this EA, a decision will be made on whether and how to salvage harvest dead or dying trees, restore forested conditions, and reduce road caused sediment delivery to streams in the project area. The decision will be the Sula District Ranger's responsibility and will include the location and scheduling of activities and mitigation and monitoring requirements.

There are many laws and executive orders that provide the framework and requirements that pertain to land use, project planning, environmental analysis, and decisions on federally administered public land. Key laws that guide this project proposal and analysis include the National Environmental Policy Act (NEPA) of 1969 (as amended), and the National Forest Management Act (NFMA) of 1976 (as amended). Other more specific and applicable laws, executive orders, regulations, and policies are described for each of the resource topics in Chapter 3 under the heading "Regulatory Framework".

MAP I-1 Project Location and Vicinity

MAP I-2 Forest Plan Management Areas